

Recovery Plan Action Status

Plan Name: Small-anthered Bittercress

Plan Status: Final

Plan Date: 10-Jul-91

Lead Agency: USFWS

Lead Office: Asheville Ecological Services Field Office

(258-3939)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Small-anthered bittercress (Cardamine micranthera)	1	1	Develop interim research and management plans in conjunction with landowners	Not Started			State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Acquisition: Management Agreement, Management, Research: Habitat Requirements, Research: Habitat Status, Research: Management Techniques, Research: Population Surveys	Labor type not yet selected	[From Recovery Plan: "If 'Parties' column contains SCA - State plant conservation agencies of participating states. North Carolina, these are the Plant Conservation Program (North Carolina Department of Agriculture) and the Natural Heritage Program (North Carolina Department of Environment, Health, and Natural Resources); in Virginia, the Division of Natural Heritage (Virginia Department of Conservation and Recreation) and the Office of Plant Protection (Department of Agriculture and Consumer Services)]
Small-anthered bittercress (Cardamine micranthera)	2	10	Implement appropriate management techniques as they are developed from previous tasks	Not Started			State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Acquisition: Management Agreement, Management: General, Management: Habitat Maintenance and Manipulation	Labor type not yet selected	

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Small-anthered bittercress (Cardamine micranthera)	3	11	Develop techniques and reestablish populations in suitable habitat within the species' historic range	Ongoing Not Current	FY 2000 - FY 2004		State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Management: Propagation, Management: Reintroduction, Research: Propagation, Research: Reintroduction	Labor type not yet selected	[CLWELLS, 2009: FWS consulted over a stream restoration project aimed at addressing threats to this species' habitat in 2003 (2/3/2003 is the date of the signed BO). Rescue and reintroduction activities (involving this species) were associated with the project. However, monitoring and reporting requirements conditioned in the Corps permit were not implemented and there is inadequate documentation of the effects of the project, as implemented, upon the species. The FWS is seeking adequate documentation of the project's effects upon the species from the appropriate parties.]
Small-anthered bittercress (Cardamine micranthera)	3	12	Develop a cultivated source of plants and provide for long-term seed storage	Not Started			Center for Plant Conservation, State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Management: Propagation, Research: Propagation	Labor type not yet selected	
Small-anthered bittercress (Cardamine micranthera)	1	13	Enforce laws protecting the species and/or its habitat	Ongoing Current	Prior to FY 1995		State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Other: Law Enforcement, Other: Regulations	Labor type not yet selected	

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Small-anthered bittercress (Cardamine micranthera)	3	14	Prepare and distribute news releases and informational brochures	Not Started			Center for Plant Conservation, State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Other: Information and Education	Labor type not yet selected	
Small-anthered bittercress (Cardamine micranthera)	3	15	Prepare articles for popular and scientific publications	Not Started			Center for Plant Conservation, State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Other: Information and Education	Labor type not yet selected	
Small-anthered bittercress (Cardamine micranthera)	3	16	Annually assess success of recovery efforts for the species	Ongoing Current	Prior to FY 1995		Center for Plant Conservation, State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Other	Labor type not yet selected	
Small-anthered bittercress (Cardamine micranthera)	3	2	Search for additional populations	Ongoing Not Current	Prior to FY 1995		State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Research: Population Surveys	Labor type not yet selected	[CLWELLS, 2009: NC PCP searched for populations in NC during years 1989-1995. VADCR searched in 2004-2006. Additional searches remain warranted in NC, and possibly in VA.]
Small-anthered bittercress (Cardamine micranthera)	1	3	Determine habitat protection priorities	Ongoing Not Current	FY 2000 - FY 2004		State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Management: Planning, Research: Population Surveys	Contract	[CLWELLS, 2009: VADCR conducted status surveys in 2004-2006, and evaluated protection priorities in a March 2007 report submitted to USFWS.]
Small-anthered bittercress (Cardamine micranthera)	1	4	Evaluate habitat protection alternatives	Not Started			State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Acquisition, Management	Labor type not yet selected	

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Small-anthered bittercress (Cardamine micranthera)	2	5	Determine population size and stage-class distribution for all populations	Not Started			State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Research: Demographic Studies	Contract	
Small-anthered bittercress (Cardamine micranthera)	2	6	Study abiotic and biotic features of the species' habitat	Not Started			State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Research: Habitat Requirements, Research: Other Information	Labor type not yet selected	
Small-anthered bittercress (Cardamine micranthera)	3	7	Conduct long-term demographic studies	Discontinued	Prior to FY 1995		State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Research: Demographic Studies	Labor type not yet selected	[CLWELLS, 2009: NCPCP (Boyer) initiated long-term monitoring that could have provided demographic level data at one NC population in 1992. Data collection continued through 1995, but was discontinued and has not been conducted there or elsewhere since that time.]

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Small-anthered bittercress (Cardamine micranthera)	2	8	Determine the effects of past and ongoing habitat disturbance	Discontinued	FY 2000 - FY 2004		State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Research: Other Information	Labor type not yet selected	[CLWELLS, 2009: FWS consulted over a stream restoration project aimed at addressing threats to this species' habitat in 2003 (2/3/2003 is the date of the signed BO). However, monitoring and reporting requirements conditioned in the Corps permit were not implemented and there is inadequate documentation of the effects of the project, as implemented, upon the species. The FWS is seeking adequate documentation of the project's effects upon the species from the appropriate parties.]
Small-anthered bittercress (Cardamine micranthera)	2	9	Define criteria for self-sustaining populations and develop appropriate habitat management guidelines based upon the data obtained from Tasks 2.2 through 2.4	Not Started			State Conservation Agencies, U.S. Fish and Wildlife enhancement, USFWS Regional Office 5, USFWS Regional Office 4	Management	Labor type not yet selected	